REMARKS

This Application has been carefully reviewed in light of the Office Action mailed September 20, 2006. Claims 1-48 and 50-65 were pending in the Application. In the Office Action, Claims 1-48 and 50-65 were rejected. Thus, Claims 1-48 and 50-65 remain pending in the Application. Applicants respectfully request reconsideration and favorable action in this case.

In the Office Action, the following actions were taken or matters were raised:

SECTION 102 REJECTIONS

Claims 1, 2, 4, 48 ad 50 were rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,555,362 issued to Yamashita et al. (hereinafter "*Yamashita*"). Applicants respectfully traverse this rejection.

Yamashita appears to be directed toward separating objects of a document and laying out the objects in a tree structure (*Yamashita*, abstract, figures 3 and 6). For example, *Yamashita* appears to disclose that: 1) a document is scanned; 2) character strings, vertical and horizontal black lines and other black pixel regions are extracted from the scanned image: and 3) long, wide and white pixel regions and long black lines serve as separators for the extracted objects (*Yamashita*, column 3, lines 35-46, column 4, lines 12-25, figures 3 and 6). *Yamashita* further appears to disclose that the results of image segmentation are displayed in an image window 50, and that a layout model 80 schematically representing the tree structure of the document is displayed in a model window 60 where the objects of the segmentation process are pictorially illustrated in rectangles (*Yamashita*, column 5, lines 41-46). *Yamashita* also appears to indicate that corrections to the segmentation process may be performed by a user. For example, *Yamashita* recites:

> [T]he objects of the individual document are not always correctly segmented. For (A) in FIG. 8, for example, "title" areas 51b1 and 51b2 are not separated from "author's name" areas 51b3 through 51b6 . . . .
>
> In this case, graphical correction of the area is changed to correct segmentation in accordance with interactive user operation.

Yamashita, column 6, lines 1-9). *Yamashita* appears to disclose that the rectangles displayed in the tree-formatted image are used to correct the segmentation. For example,

Yamashita appears to indicate that the rectangles may be generated, deleted, modified, etc., to ungroup or re-group various objects (*Yamashita*, column 6, lines 24-67, figures 8 and 9). Thus, *Yamashita* does not appear to disclose or even suggest "receiving a definition of <u>at least one region in an image, the region definition having a location specification</u> and a type specification" and "receiving a <u>user-specified definition of a visible area in the image</u>, the visible area definition having a specification of margins around the image" as recited by amended Claim 1 (emphasis added). To the contrary, the rectangles of *Yamashita* that appear to be used in *Yamashita* to group various objects in the image appear to be directed toward a particular <u>region in an image</u> and do not appear to be used in *Yamashita* to define "a visible area in the image . . . [defining] a specification of margins around the image" as recited by Claim 1. In fact, *Yamashita* does not appear to disclose or even suggest any user input whatsoever for defining the margins around the image. Thus, for at least this reason, Applicants respectfully submit that independent Claim 1 is patentable over the *Yamashita* reference.

Moreover, in the Office Action, the Examiner appears to acknowledge that *Yamashita* does not disclose receiving user input for defining the visible area in the image (Office Action, pages 5 and 6 (addressing the rejection of Claim 11 under 35 U.S.C. § 103(a)). The Examiner further appears to rely on U.S. Patent No. 5,767,978 issued to Revankar et al. (hereinafter "*Revankar*") to remedy at least this deficiency of *Yamashita*. However, the Examiner's reasoning with respect to Claim 11 does not appear to address or in any way refer to any disclosure in the *Revenkar* reference directed toward receiving any such user input. To the contrary, the Examiner's reasoning with respect to the *Revenkar* reference appears to be limited to indicating that *Revenkar* purportedly teaches segmentation based on a three-class system (such as traditional text, graphic and picture systems) for providing the benefit of recognizing region types by class and modality (color, bit depth, etc.) (Office Action, pages 5 and 6). Thus, Applicants respectfully submit that *Revenkar* does not appear to remedy the deficiency of *Yamashita* discussed above. Accordingly, for at least this reason also, Applicants respectfully submit that Claim 1 is patentable.

Independent Claim 48, as amended, recites "a graphical user interface operable to . . . receive <u>a user-specified definition of a visible area having a specification of margins around the image</u>" (emphasis added). At least for the reasons discussed above in connection with independent Claim 1, Applicants respectfully submit that independent Claim 48 is also patentable over the *Yamashita* reference.

Claims 2, 4 and 50 that depend respectively from independent Claims 1 and 48 are also not anticipated by *Yamashita* at least because they incorporate the limitations of respective Claims 1 and 48 and also add additional elements that further distinguish *Yamashita*. Therefore, Applicants respectfully request that the rejection of Claims 1, 2, 4, 48 and 50 be withdrawn.

SECTION 103 REJECTIONS

Claims 12-14 and 58-60 were rejected under 35 U.S.C. 103(a) as being unpatentable over *Yamashita*. Claims 3, 11, 17 and 57 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Yamashita* in view of *Revankar*. Claims 5 and 51 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Yamashita* in view of U.S. Patent No. 6,735,740 issued to Sakai et al. (hereinafter *"Sakai"*). Claims 6 and 52 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Yamashita* in view of U.S. Patent No. 6,163,623 issued to Ohta (hereinafter *"Ohta"*). Claims 7, 15 and 53 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Yamashita* in view of *Rangarajan*. Claims 8-10 and 54-56 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Yamashita* in view of *Rangarajan* and in further view *Revankar*. Claims 16, 20, 61 and 64 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Yamashita* in view of *Rangarajan*, and in further view of U.S. Patent No. 5,999,664 issued to Mahoney et al. (hereinafter *"Mahoney"*). Claims 18-19 and 62-63 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Yamashita* in view of *Rangarajan* and in further view of U.S. Patent No. 5,848,184 issued to Taylor et al. (hereinafter *"Taylor"*). Claim 21 and 65 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Yamashita* in view of *Rangarajan* and in further view of U.S. Patent No. 6,594,030 issued to Ahlstrom et al. (hereinafter *"Ahlstrom"*). Claims 22-24, 33-35 and 43-47 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Yamashita* in view of *Mahoney*. Claims 25-32 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Yamashita* in view of *Mahoney* and in further view of *Revankar*. Claim 26 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Yamashita* in view of *Mahoney* and in further view of *Sakai*. Claim 27 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Yamashita* in view of *Mahoney* and further in view of *Ohta*. Claim 28, 36-37 and 41 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Yamashita* in view of *Mahoney* and in further view of *Rangarajan*. Claims 29-31 and 38 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Yamashita* in view of *Rangarajan* and in further view of *Revankar*. Claim 39-40 was rejected under 35 U.S.C. §103(a) as being unpatentable over *Yamashita* in view

of *Mahoney* and in further view of *Rangarajan* and in further view of *Taylor.* Claim 42 was rejected under 35 U.S.C. §103(a) as being unpatentable over *Yamashita* in view of *Mahoney* and in further view of *Rangarajan* and in further view of *Ahlstrom.* Applicants respectfully traverse these rejections.

Claims 3, 5-21 and 51-65 depend respectively from independent Claims 1 and 48. As discussed above, independent Claims 1 and 48 are allowable. Therefore, Claims 3, 5-21 and 51-65 that depend respectively therefrom are also allowable. Moreover, Applicants respectfully submit that *Revankar, Sakai, Ohta, Rangaraja, Mahoney, Taylor,* and *Ahlstrom* do not appear to remedy, nor did the Examiner rely on these references to remedy, at least the deficiencies of *Yamashita* discussed above. Therefore, for at least these reasons, Applicants respectfully request that the rejection of Claims 3, 5-21 and 51-65 be withdrawn.

Of the remaining rejected claims, Claim 22 is independent. Claim 22 was rejected under 35 U.S.C. §103(a) as being unpatentable over *Yamashita* in view of *Mahoney.* In the Office Action, the Examiner states that *Yamashita* does not disclose "searching for an image layout definition template that best matches the generated image layout definition" or "conforming the generated image layout definition to the best-matched image layout definition template" as recited by Claim 22 (Office Action, page 16). Applicants agree. However, the Examiner further states that *Mahoney* purportedly teaches the above-referenced limitations of Claim 22, and that it would have been obvious to combine the purported teachings of the *Yamashita* and *Mahoney* references to arrive at Applicants' invention as defined by Claim 22 (Office Action, pages 16 and 17). Applicants respectfully disagree.

Mahoney appears to be directed toward a system for searching a corpus of document images (*Mahoney,* Title). *Mahoney* appears to disclose analyzing a document so that the document may be identified by the document's configuration or layout format (*Mahoney,* abstract, column 8, lines 10-18). For example, *Mahoney* appears to disclose that a document may be analyzed at two levels:

> At the lower level, specific layout formats of a document can be identified (e.g., the recipient field of a letter or the header field of a memo). Such identification is performed herein using features. At the higher level, the entire configuration of an input document is captured using genre models. For example, a "business letter" is a genre model of a document that can be defined in most instances by a letter-date feature, a letter-

recipient feature, a letter-cc feature, and a letter-signature
feature (as shown in FIG. 3).

(*Mahoney*, column 20, lines 44-56). *Mahoney* appears to disclose a genre model program interface 219 which a user can utilize to define a genre model which is stored in a file system 117 of *Mahoney* (*Mahoney*, column 20, lines 63-67). *Mahoney* further appears to indicate that when a document is analyzed and matches or satisfies a particular genre model, the document is defined with attributes corresponding to the matching genre model (*Mahoney*, column 21, lines 18-67). *Mahoney* further appears to disclose a search engine for searching a corpus of documents based on text, document metadata, document features, and genre models stored in the file system 117 (*Mahoney*, column 22, lines 11-26). Thus, *Mahoney* appears to disclose: 1) analyzing a document so that attributes of the document may be defined, stored and used for searching purposes; 2) defining a genre model for defining attributes for a particular document; and 3) searching a corpus of documents based on the stored/defined attributes. Thus, *Mahoney* does not appear to disclose "generating an image layout definition comprising the region definition," "searching for an image layout definition template that best matches the generated image layout definition" and "conforming the generated image layout definition to the best-matched image layout definition template" as recited by Claim 22. To the contrary, any "image layout definition template" considered by the Examiner as being disclosed in *Mahoney* appears to be limited to being used to define attributes for a particular document so that the document may be retrieved from a corpus of documents in response to a search request. Therefore, for at least this reason, Applicants respectfully submit that neither *Yamashita* nor *Mahoney*, alone or in combination, discloses, teaches or suggests the limitations of independent Claim 22.

Further, Applicants respectfully submit that there is no motivation or suggestion to combine the purported teachings of *Mahoney* with *Yamashita* as proposed by the Examiner. For example, in the Office Action, as a basis for combining the purported teachings of *Mahoney* with *Yamashita*, the Examiner states that it "provides the benefit of identifying documents (or regions thereof) with models" (Office Action, page 17). As discussed above in connection with the rejection under 35 U.S.C. § 102 of independent Claims 1 and 48, *Yamashita* appears to disclose analyzing a particular document and performing object segmentation for the document based on the unique characteristics of the document being analyzed to generate a tree structure for the particular document (e.g., the locations of white pixels, character strings, black lines, etc., of the document being analyzed) (*Yamashita*, column 3, lines 35-46, column 4, lines 12-25, figures 3 and 6). Applicants respectfully

submit that the image segmentation analysis performed by *Yamashita* cannot be accomplished using a "model" as proposed by the Examiner. Nor would any "model" appear to have any relevance to the segmentation process performed by the *Yamashita* system. Further, further even if a "model" was used in the *Yamashita* reference, which Applicants submit is not suggested, the resulting combination still does not result in "conforming the generated image layout definition to the best-matched image layout definition template" as recited by Claim 22. Thus, there appears to be no motivation or suggestion to combine the purported teachings of *Mahoney* with *Yamashita*. Accordingly, for at least this reason also, Applicants respectfully submit that Claim 22 is patentable over the *Yamashita* and *Mahoney* references. Moreover, none of the remaining cited references appear to remedy, nor did the Examiner rely on to remedy, at least the deficiencies discussed above.

Accordingly, Applicants respectfully submit that independent Claim 22, and Claims 23-47 that depend therefrom, are patentable over the cited references.

CONCLUSION

Applicants have made an earnest attempt to place this case in condition for immediate allowance. For the foregoing reasons and for other reasons clearly apparent, Applicants respectfully request reconsideration and full allowance of all pending claims.

An RCE filing fee of $750.00 is believed due. The Director of Patents and Trademarks is hereby authorized to charge Deposit Account No. 08-2025 of Hewlett-Packard Company the amount of $750.00 to satisfy the RCE filing fee. If, however, Applicants have miscalculated the fee due with this RCE, the Director is hereby authorized to charge any fees or credit any overpayment associated with this RCE to Deposit Account No. 08-2025 of Hewlett-Packard Company.

Respectfully submitted,

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